

IN THE CLAIMS:

Prior to examination on the merits, please amend the claims of the international application as follows.

1. (Original) A gas sensor comprising a body, on which is mounted an optical source and detector means sensitive to light from the source, the body further comprising a channel arranged to admit gas, the channel comprising an elongated groove having reflective surfaces defining a folded optical path for light from the source.
2. (Original) A sensor as claimed in claim 1, in which the source is located at one end portion of the channel.
3. (Original) A sensor as claimed in claim 2, in which the detector means comprises a first detector located at the other end portion of the channel.
4. (Original) A sensor as claimed in claim 3, in which the detector means further comprises a second detector, the sensor further comprising means arranged to redirect a portion of light from a predetermined region of the channel to the second detector.
5. (Currently Amended) A sensor as claimed in ~~any previous~~ claim 1, in which a portion of the elongated groove forms a spiral optical path.
6. (Currently Amended) A sensor as claimed in ~~any previous~~ claim 1, in which a portion of the groove forms a serpentine optical path.
7. (Currently Amended) A sensor as claimed in ~~any previous~~ claim 1, in which a portion of the groove forms a helical optical path.

8. (Original) A sensor as claimed in claim 7, in which the body is cylindrical and the helical optical path extends around the exterior of the body.
9. (Original) A sensor as claimed in claim 8, in which the cylinder includes a hollow region and a portion of the groove comprises a helical optical path around the interior of the hollow region.
10. (Original) A sensor as claimed in claim 7, in which the body includes a hollow cylindrical region and a portion of the groove comprises a helical optical path around the interior of the hollow region.
11. (Currently Amended) A sensor as claimed in ~~any one of claims~~ claim 1 ~~to 7~~, in which the body comprises a base arranged to accommodate the source and detector(s) and at least one wall extending transversely from the plane of the base.
12. (Original) A sensor as claimed in claim 11, in which the walls are arranged substantially to bisect each other transversely.
13. (Currently Amended) A sensor as claimed in claim 11 ~~or 12~~, in which a portion of the elongated groove is located on the at least one wall and a portion of the groove is located on the base.
14. (Currently Amended) A sensor as claimed in ~~any previous~~ claim 1, further comprising a cover for the channel including gas admittance means.
15. (Original) A sensor as claimed in claim 14, in which the cover has an interior surface facing the channel, which surface is arranged to reflect radiation.
16. (Currently Amended) A sensor as claimed in claim 14 ~~or 15~~, in which the gas admittance means includes sintered material.

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17. (Currently Amended) A sensor as claimed in claim 14 ~~or 15~~, in which the gas admittance means includes a particulate filter.

18. (Currently Amended) A sensor as claimed in ~~any preceding~~ claim 1 wherein the optical source is an infrared source.

19. (Cancelled) A gas sensor, substantially as hereinbefore described, with reference to, or as illustrated in, the accompanying drawings.